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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

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**File: 3BM-KIM0911**

## **MEETING NOTES**

**Date:** December 7, 2009

**Time:** 9:00 am (MST) / 11:00 am (EST) to 11:15 am (MST) / 1:15 (EST)

**Venue:** Teleconference call in procedures as follows:  
Toll-Free: 1-877-727-8553  
Participant Code: 908 066 616#  
State name and press #

**Subject:** Kimmirut Water Licence Amendment

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### **Attendees:**

Bhabesh Roy, Government of Nunavut Community Government Service (GN-CGS)  
Patricio Fuentes, GN-CGS  
Steven Burden, TROW Associates Ltd. Consultant to GN-CGS  
Ian Rumbolt, Indian and Northern Affairs Canada (INAC)  
Tanya Trenholm, INAC  
Andrew Keim, INAC  
Carrie Spavor, Environment Canada (EC)  
Anne Wilson, EC  
Jane Fitzgerald, EC  
Mary Kelly, EC  
Allison Loder, Government of Nunavut Department of Environment (GN-DOE)  
Dee Karadag, GN-DOE  
David Hohnstein, Nunavut Water Board (NWB)  
Karlette Tunaley, Consultant to NWB  
Catherine Emrick, legal counsel to NWB

### **Items Discussed:**

#### **1. Plan for sewage disposal during construction (amendment request to licence condition D, 1);**

The plan for sewage disposal during construction of the Enhanced Sewage Disposal Facility was described which involves disposal of sewage to a ditch which drains to the ocean (i.e. status quo to be maintained until construction is complete). This activity is not in compliance with the existing licence (3BM-KIM0911) or the previous licence (3BM-KIM0207) which authorized sewage disposal to a Sewage Disposal Facility defined in the Licence as "the area and engineered lagoon and decant structures designed to contain sewage, as described in the Application for Water Licence filed by the Applicant on May 17, 2001." Although the Sewage Disposal Facility was built, it was never commissioned because the lagoon access road needed to be constructed and the lagoon containment structures required repair.

It was noted that these compliance issues have been ongoing since 2003 and have been brought to the attention of the GN and filed with the NWB. INAC inspections have documented this, and INAC concurred with concerns expressed.

No other alternatives for sewage disposal during construction were forwarded.

The effect of funding on construction planning was discussed. It was noted that a request for funds to construct the Enhanced Sewage Disposal Facility had been provided to Capital Planning and was part of the budget to be presented to the Financial Management Board ("FMB") for approval. Pg 4 of CGS's November 2, 2009 submission was referred to. The question regarding what would happen if the request for funding was not approved was not answered because the question was directed to representatives from the Capital Planning department who were not available for the teleconference.

Depending on FMB approval, GN-CGS's plan is to start construction of the Enhanced Sewage Disposal Facility in 2010 and commission the Facility in spring/summer of 2011 (providing one season of freezing temperatures for the lagoon berms). Freezing is to be verified before use.

It was noted that funding has been provided for the development of quarry materials for construction, but not for the construction of the facility itself.

## **2. Sewage effluent discharge criteria (amendment request to licence condition D, 2);**

The proposed effluent quality criteria were described and the effects of dilution on effluent quality were discussed. It was noted that precipitation records for the area are unavailable so precipitation data and runoff ratios for Iqaluit were analysed to determine the dilution of the effluent. It was also noted that a dilution factor for the wetlands was not calculated due to the variability of dilution factors (runoff coefficient, winds, snow drifting) and assumptions associated with the calculation. The assumptions would introduce uncertainty into the calculation making them ineffective. It was further noted that a field survey was not conducted last year and that a one year study would not be beneficial because of the variability.

The fish bearing nature of the pond immediately downstream of the wetland area, draining to the large lake was discussed. If this pond is fish bearing (or the lake itself), effluent quality standards must consider the protection of fish habitat. It was determined that no conclusive study was available to indicate whether the pond was fish bearing or not. GN-CGS agreed to discuss the issue with the Hamlet and provide a memo documenting the Hamlet's knowledge to the NWB and reviewers.

It was noted that the headers in Tables 5 and 6 of Trow's October 30, 2009 memo to CGS required correction. Trow agreed to provide a corrected memo.

## **3. Plan for compliance for Board approval (required in accordance with licence condition B, 11);**

### **a. Implementation schedule (required in accordance with licence condition B, 11);**

It was noted that the implementation schedule provided in the Plan for Compliance was general, lacked detail, and was dependent upon funding. The current plan is to construct the Enhanced Sewage Disposal Facility in 2010 and commission it in 2011. Once funding is provided, the schedule can be confirmed, but at this time it is not possible to provide a more detailed schedule.

### **b. Operations and Maintenance Manual for existing facilities (required in accordance with licence condition F,1);**

It was generally agreed that an Operations and Maintenance Manual for the existing Sewage Disposal Facility would not be provided since the existing facility would never be operated.

### **c. Quarry Management Plan for Board approval (required in accordance with licence condition D, 10);**

It was noted that a Quarry Management Plan was submitted as part of the application for amendment. Concerns regarding the spill contingency plan for the quarry as well as the acid rock drainage and metal leaching potential of the quarry material were discussed. It was noted that the spill contingency plan for

the quarry should be similar to the one provided in the draft Operations and Maintenance Manual for the Enhanced Sewage Disposal Facility and that one spill contingency plan that addressed all Hamlet operations (sewage disposal facility, quarry, etc) should eventually be incorporated into the Operations and Maintenance Manual. However, since the Quarry Management Plan is required to be submitted to the Board for approval before the Operations and Maintenance Manual, a spill contingency plan specific to the quarry should be incorporated into the Quarry Management Plan. CGS agreed to review condition D10 of the Licence as well as parties' comments on the issue and provide a response. Parties clarified that any spill plan should be consistent with the GN regulations, but must be a practical document beyond the spill reporting.

**d. Solid waste disposal (compliance with licence condition D, 6);**

It was generally agreed that the Plan for Compliance must address plans for the Solid Waste Disposal Facility such as what is being proposed (a new facility), when funding is anticipated and when activities are planned. CGS agreed to provide more information to address the Solid Waste Disposal Facility.

**e. Geotechnical engineer's inspection report (required in accordance with licence condition F, 4);**

Similar to the previous issue, it was generally agreed that the Plan for Compliance must address this condition of the Licence.

**f. Abandonment and Restoration Plan (required in accordance with licence condition G, 1);**

It was noted that an abandonment and restoration plan for the existing sewage disposal site (ditch) was required and that an abandonment and restoration plan for the existing solid waste disposal site would be required prior to construction of any new solid waste disposal facility. Clarification in the Plan for Compliance addressing solid waste disposal would help to determine when abandonment and restoration plans for solid waste disposal facilities will be required.

**4. Next Steps.**

- a) CGS to discuss the fish bearing nature of the pond that drains to the large lake with the Hamlet and provide a memo to the NWB and reviewers;
- b) Trow to correct the table headers in its October 30, 2009 memo and provide a revised memo for submission to the NWB;
- c) CGS to review condition D,10 of the Licence as well as reviewers comments on the Quarry Management Plan and provide a response (including spill contingency planning) to the NWB;
- d) CGS to provide a Plan for Compliance to address solid waste disposal;
- e) CGS to provide a Plan for Compliance to address the geotechnical engineer's inspection and report, and
- f) CGS to provide a Plan for Compliance to address abandonment and restoration plans.